

REMARKS/ARGUMENTS

Claims 1-12 are pending in the present application. The drawings have been objected to under 37 C.F.R. 1.83(a) because the drawings do not show every feature of the invention specified in the claims. Claims 1-12 have been rejected under 35 U.S.C. § 112 second paragraph as being indefinite for failing to particularly point and distinctly claim the subject matter of which the Applicant regards as the invention. Claims 1 and 7 have been amended to overcome this rejection. Claims 7-12 have been rejected under 35 U.S.C. § 103 as being unpatentable over Gollner (U.S. Patent No. 6,339,928) in view of Applicant's admitted prior art. Claims 1-6 have been rejected under 35 U.S.C. § 103 as being unpatentable over Meier (U.S. Patent No. 6,430,923) in view of Gollner. Applicant traverses all rejections.

The drawings have been objected to under 37 C.F.R. 1.83(a) because the drawings must show every feature of the invention specified in the claims. Specifically, the Examiner suggests the control system controlling the proportional control valve based on pressure in the system lines and other parameters must be shown or this material must be cancelled from the claims. Consequently, the Applicant has cancelled claims 6 and 12. Additionally, Applicant directs the Examiner to Figs. 1 and 2 that both show the control system having a line that crosses over hydraulic lines 18 and is shown connected to proportional flow control valve 26. One skilled in the art will understand that by being connected to the pressure lines 18 that the control system is able to sense the pressure within the pressure lines as is known in the art. Thus, because claims 6 and 12 have been cancelled, all drawing objections should be withdrawn.

Claims 7-12 have been rejected under 35 U.S.C. § 103 as being unpatentable over Gollner in view of Applicant's admitted prior art. An obviousness analysis begins in the text of section 103 with the phrase "at the time the invention was made." For it is this phrase that guards against entry into the "tempting but forbidden zone of hindsight when analyzing the patentability of claims pursuant to that section. See Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 873, 228 U.S.P.Q. 90, 98 (Fed. Cir. 1985), overruled on other grounds by Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 46 U.S.P.Q.2d 1097 (Fed. Cir. 1998). Measuring a claimed invention against the standard established requires the often difficult but critical step of casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and then-accepted wisdom in the field. See, e.g. W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against the teacher." Id.

The best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 U.S.P.Q.2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine] as an essential evidentiary component of an obviousness holding") combining prior art references

without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability - the essence of hindsight. See, e.g. Interconnect Planning Corp. v Feil, 774 F.2d 1132, 1138, 277 U.S.P.Q. 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.") In this case, the Examiner has fallen into the hindsight trap.

Evidence of a suggestion, teaching or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem solved, although the suggestion more often comes from the teachings of the pertinent references. Rouffet, 149 F.3d at 1355. The range of sources available does not diminish the requirement for actual evidence. That showing must be clear and particular. See, e.g., C.R. Bard, 157 F.3d at 1352. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. e.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 U.S.P.Q.2d 1129, 1131 (Fed. Cir. 1993) ("Mere denials and conclusory statement, however, are not sufficient to establish a genuine issue of material fact.").

The Examiner takes official notice that "for an electrical flow control valve, which is controlled by modulating switch on and switch-off time; that the valve can be a proportional spool or poppet valve" and this valve can be combined with the closed loop flushing system of Gollner to arrive at the claimed invention. To justify this combination the Examiner states "it would have been obvious at the time the invention was made to one having ordinary skill in the art to use a proportional spool

or poppet valve for the control valve of Gollner, as a matter of engineering expediency." (Office action page 4). Nowhere does the Examiner particularly identify any suggestion, teaching, or motivation to combine the prior art references such as the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any other facts or findings that might serve to support a proper obviousness analysis. See Pro-Mold & Tool, 75 F.3d 1568, 1573, 37 U.S.P.Q.2d. 1626, 1630 (Fed. Cir. 1996).

To the contrary, the Examiner's decision is based on a discussion of the ways that the multiple prior art references can be combined on the claimed invention. (Office action, page 4). Yet this reference by reference, limitation by limitation analysis fails to demonstrate how the Gollner reference teaches or suggests using the information in the official notice. For example, the Examiner has not explained why, if it was obvious to make the proposed combination that Gollner did not use an electrically proportional control valve within the flushing circuit when this option was readily available. In contrast, Gollner, as a person of ordinary skill in the art, chose to use a flushing valve that provided non-proportion operation. In this respect, Gollner teaches away from the proposed combination. This is a point that the Examiner did not address in his answer.

A factor cutting against a finding of motivation to combine or modify the prior art is when the prior art teaches away from the claimed combination. A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path the Applicant took. In re Gurley, 27 F.3d 551, 31

U.S.P.Q.2d 1130, 1131 (Fed. Cir. 1994). Here, because Gollner teaches a non-proportional flushing valve, one skilled in the art upon reading Gollner would have been led in a path divergent from that taken by the Applicant. Accordingly, because the Examiner has not particularly identified any suggestion, teaching, or motivation to combine the prior art references, in addition to the disclosure of Gollner that teaches away from the proposed combination, the Examiner's conclusion of obviousness, as a matter of law, cannot stand.

Even if there was a suggestion or motivation to combine, the apparatus that would result still would not meet the limitations of claims 7-11. More specifically, the proposed combination would not include "an electrically proportional flow control valve fluidly connected to the shuttle valve and adapted to regulate the flushing flow of the closed loop circuit." The teachings or suggestions to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. See In re Vacck, 997 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); MPEP § 2143. To establish a *prima facie* case of obviousness, all the claim limitations must be taught by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 57 C.C.P.A. 1029, 1032 (1970).

Gollner does not disclose an electrically proportional flow control valve. Instead, Gollner discloses an electrically non-proportional flow control valve as is evidenced by Fig. 3, numeral 21 that does not show a double set of lines around the flushing valve 21. Because a non-proportional electric valve is used, an operator is unable to intelligently select the loop

flushing flow and thus the system within the Gollner reference will perform inefficiently compared to the present invention. (Page 3, lines 13-24). Thus, as admitted by the Examiner the Gollner reference "does not disclose that the electrical flow control valve is a proportional spool or poppet valve." (Office action, page 3).

In order to cure Gollner the Examiner has taken official notice that for an electrical flow control valve which is controlled by a modulating switch on and switch off time, that the valve can be a proportional spool or poppet valve. The Examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration of being "well known" in the art. In re Ahlert, 424 F.2d 1088, 1091, 165 U.S.P.Q. 418, 420 (CCPA 1970); See also MPEP § 2144.03. Applicant traverses this assertion. The Examiner has suggested that the Applicant has admitted that one skilled in the art considers an electrical flow control valve to be the equivalent of an electrical proportional control valve. The Applicant has reviewed the application and submits that the Applicant has never suggested that an electrical control valve was the equivalent of an electrical proportional control valve and instead has suggested that there are functional advantages to using an electrically proportional control valve over an ordinary electrically controlled valve as seen in the Gollner reference. Consequently, because Gollner does not provide an electrically proportional control valve and because the Applicant has not admitted that a electrically controlled flush valve is equivalent to an electrically proportional control valve, and because the Examiner has not provided any references that similarly suggest their equivalence, the Examiner has not shown that this limitation has been met. Because each and every

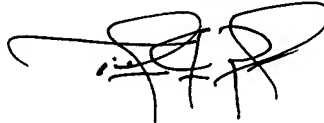
limitation of the claimed invention is not present, the obviousness rejection should be withdrawn. Claims 8-11 depend on claim 7 and for at least this reason should also be considered in allowable form.

Claims 1-6 have been rejected under 35 U.S.C. § 103 as being unpatentable over Meier in view of Gollner. Claim 1 requires "an electrically proportional control valve and at least one of the system lines". Once again, the Examiner takes official notice that "an electrical control flow valve, which is controlled by modulating switch on and switch off time; that the valve can be a proportional spool or poppet valve." The Applicant, again, traverses this official notice. First, the Applicant has not claimed an electrical flow control valve but instead has claimed an electrically proportional control valve. As disclosed in the Applicant's Background of the Invention, Meier, like Gollner, teaches the use of a single non-proportional electrical valve to control loop flushing flow. (Page 3, lines 15-17). "Because a non-proportional electrical valve is used, an operator is unable to intelligently select the loop flushing flow. Because the '923 device unable to intelligently select the loop flushing flow, under certain conditions the closed loop will perform inefficiently compared to the present invention. Therefore, the present invention is considered an improvement over the '923 device." (Page 3, lines 17-23). Thus, because neither Gollner nor Meier teaches an electrically proportional control valve in at least one of the system pressure lines as is required by claim 1 the obviousness rejection cannot stand. Additionally, claims 2-5 depend on claim 1 and for at least this reason are also considered in allowable form.

CONCLUSION

If any issues remain that may be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone the undersigned at 515/558-0200. All fees or extensions of time believed to be due in connection with this response are attached hereto; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account 50-2098.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'T. Zarley', with a stylized flourish at the end.

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